always been so, otherwise the breasts gave no suggestion of pregnancy.

Abdominal palpation gave tenderness over both inguinal regions with a greater rigidity on the left side. Pelvic examination showed a uterus somewhat enlarged, cervix soft, considerable enlargement of right tube with extreme tenderness. A soft boggy mass occupying the left broad ligament and only slightly tender to touch. A grumous discharge from uterus. A diagnosis of an intraligamentary ruptured tubal pregnancy on the left side with probably a hydrosalpinx on the right was made.

The operation showed the left broad ligament distended with blood from a ruptured hematosalpinx. On the right side a hemato-salpinx (unruptured) which at the time was considered to be a sympathetic condition or perhaps similar to the other case reported in these notes. The microscopical examination of the right tube showed, however, the presence of villi and though the examination of the left tube has so far not been made carefully, I feel justified in diagnosing the condition on that side as an intraligamentory rupture of a tubo-ovarian pregnancy. I know of no condition which would cause a hemorrhagic rupture unassociated with weakening of the tubal wall as occurs from the villi penetration.

The second case is one of a woman, 29 years of age, who up to the time of the attack here reported had been in good physical condition with nothing of value in the history except that she was married some time ago, but for some years has not been living with the husband. The attack commenced as an acute pelvic inflammation, the gross pathology presenting in the left tube.

A diagnosis was made of pyosalpinx, which was confirmed by another gynecologist, who kindly saw her for me while I was on a vacation. Expectant treatment was adopted and the pain, temperature and soreness gradually subsided, the left tube remaining enlarged. There had been no disturbance of menstruation and no symptoms pointing to a tubal pregnancy. Some two or three weeks after the onset of the trouble the patient was up, feeling fairly well and anxious to return to work.

Without permission she took a street car ride and returned home suffering intense pain in the left side. Locally the findings were unchanged for some days, but the temperature returned and the patient was generally in poor condition. This happened while I was out of town and on my return some days later I found on pelvic examination a large mass projecting in the cul de sac and made a diagnosis of pelvic abscess.

A posterior incision showed a large collection of clotted blood. The left tube much distended, high up and adherent. After the operation the patient's condition improved markedly, but fresh bleeding continued through the gauze packing. Twelve hours later a laparotomy was done and a large oozing hemato-salpinx was removed from the left side. The recovery was uneventful, drainage being continued from the cul de sac.

No question as to the condition was raised in either the consultant's or my mind until some time later when the patient denied absolutely, the possibility of a pregnancy being present. A careful microscopical examination of the tube made then showed no embryonic structures and the man who made the sections reported that it reminded him of a similar case of a nurse at Johns Hopkins where an exceedingly thorough examination showed no signs of pregnancy.

Oakland (NOT Santa Cruz) is the place of the Annual Meeting of the State Society, April 15, 16 and 17, 1913.

THE TECHNIC OF THE REMOVAL OF FOREIGN BODIES AND NEW GROWTHS FROM THE ESOPHAGUS.*

By W. P. MILLSPAUGH, M. D., Los Angeles.

This subject is a little bulky for a ten-minute paper and I shall begin immediately to use the pruning shears. That portion of it referring to new growths is an unknown field to me, and I shall leave it untouched. Malignant growths are almost the only ones found in the esophagus; their removal belongs to general surgery.

In discussing the removal of foreign bodies, I suppose some mention should be made of the older and well-known methods. But I shall give very little time to this part of the subject, for I believe that those older methods are so blind and uncertain and dangerous that they should be discarded in practically every case where esophagoscopy is available. The number of men employing esophagoscopy is increasing rapidly, so that in the near future this means of relief will be available in nearly all parts of the country. And while time is very important in these cases, it will frequently mean less danger to the patient to take the time necessary to reach an esophagoscopist than to try to remove the foreign body by the old means.

Among the old methods I shall speak of inversion, the induction of vomiting, the administration of more or less solid food; the use of the bougie, probang and coin-catcher; and of the esophageal forceps.

I suppose it does a child little harm to stand him on his head and try to shake out a swallowed foreign body, if that effort is not persisted in too long. And if the body is round and smooth I suppose it would do little harm to give emetics and thus try to eject the intruder. And, further, if it be known that the body is not only smooth but of such diameters that it could be forced into the stomach without great risk it would sometimes be permissible to administer solid food, in an effort to carry it along, or even to carefully push it along with a bougie. No doubt these old methods have frequently been crowned with success, and in certain cases are relatively free from danger. It is astonishing what the esophagus will sometimes tolerate, as well as the rest of the alimentary tract.

The probang and coin-catcher are ingenious devices, frequently successful in proper cases, but responsible also for much hidden and disastrous damage; they belong to a chapter in surgical history which should be closed. The same praise and the same condemnation belong to the esophageal forceps; by these I mean the curved or angled or flexible forceps which are introduced blindly and which bite blindly for their object. Who could know whether the resistance felt on withdrawing a body by such forceps was the resistance of the body against the esophageal wall or whether a portion of the wall itself was coming, and how could one tell whether the point or edge of a sharp body were perforating or lacerating the wall in its passage? Of course the fluoroscope properly

* Read before the Los Angeles County Medical Association, November, 1912.

managed would be a great aid in the manipulation of these instruments.

In thus condemning these old and useful procedures as generally too dangerous, I do not by any means claim that esophagoscopy is free from danger. It has many dangers, which will be considered at length later; I have spent anxious hours over a patient after an attempt at esophagoscopy, not knowing at what moment his pulse and respiration might cease.

The technic of removing foreign bodies by esophagoscopy resolves itself into two main problems—the introduction of the tube to the level of the foreign body, and the grasping and withdrawal of the body.

The question of anesthesia has always to be settled. It differs somewhat from the similar question in bronchoscopy; here there is never any need to preserve the cough-reflex, and the greatest possible dulling of sensation is desirable. However, the esophagus itself is not very sensitive, and the tendency with most men in this field seems to be away from general anesthesia toward local anesthesia aided by the hypodermic use of morphine. Some work at times with no anesthesia, in very young children, for instance. Janeway and Green [1] have even done a large number of gastroscopies under the following routine anesthesia: 1/4 grain morphine is given hypodermically shortly before the examination; a little later 5 grains of anesthesin are given by mouth; finally the pharynx is thoroughly anesthetized with 10% cocain. They state that "the degree of discomfort experienced has not been regretted by any of the patients examined." It is usually desirable to give from 1/150 to 1/100 grain of atropine with the morphine; this lessens the secretion of mucus, which is nearly always troublesome. In certain cases, notably in children and very nervous patients, general anesthesia will be necessary, especially if the foreign body is such that much manipulation will probably be required. In my judgment chloroform is too dangerous, and ether should always be used unless especially contra-indicated. Rectal or intravenous anesthesia would be very pleasant for the examiner, if only they were safe. The administration of warm ether vapor through nasal or mouth tubes would be of advantage. But ordinary anesthesia is satisfactory; the patient should be put well under before work is begun.

My own experience has been limited to the use of the Jackson instruments, and the position of the patient and other details of introduction into the esophagus are similar in many respects to those for introduction through the larynx. If local anesthesia is used the patient is usually seated on a low stool. An assistant sits behind him and steadies and supports the head. For general anesthesia, the patient lies supine, with shoulders extending four or five inches beyond the end of the table, the assistant seated at his right supporting the head and neck. Just lately I have begun the use of Jackson's direct laryngoscope. This may be introduced into the upper esophagus for a short distance, far enough at times to reach the foreign body without a secondary tube. If the body lies lower, the esophagoscope may be introduced through the laryngoscope, past the troublesome cricoid, after which the laryngoscope may be withdrawn, leaving the longer tube in position. Johnston of Baltimore uses this method largely; to me it promises considerable satisfaction. The older method is to introduce the left index finger as far as possible toward the patient's cricoid and then slip the tip of the esophagoscope along the finger to one pyriform sinus; this point being reached, if the assistant secures just the right amount of forward stretching of the neck and of extension of the head on the occipito-atlantal joint the tube can be slipped into the esophagus quite readily. This sounds simple enough, but to me it has usually been the hardest part of the task; a trained assistant for holding the head is a most valuable asset. Once well past the cricoid the tube usually slips easily down the rest of the gullet, the assistant varying the position of the head and neck slightly to prevent undue pressure of the tip of the tube. In foreign-body work the tube should always be introduced without its mandrin and every centimeter of the esophagus inspected from above downward. Of course if the body is known to be low down the mandrin may be used in the upper part, but even in this case it is better to examine the whole length of the gullet, noting the amount of traumatism which the body has caused.

Having reached the foreign body, the second main problem is before one. Important points in this problem are the shape and size of the body and whether it is firmly embedded, whether it has sharp points or edges, perhaps already fixed in the wall or, if not, in such position that traction is likely to cause them to perforate. Pins, open safetypins, sharp pointed bones and similar dangerous objects are among those frequently swallowed. To remove these safely calls frequently for much judgment, care and ingenuity. Various clever instruments have been devised for closing safety pins, cutting pins, breaking tooth plates, etc. In general the principle is to try to draw the sharp points or edges into the tube before attempting to withdraw them, unless they happen to be pointed safely downward. When the body is too large to pass through the esophagoscope, tube, forceps and object must be withdrawn together, except where it is found possible and advisable to break the body into fragments.

We come back now to the danger of removing foreign bodies by esophagoscopy. It is to be remembered that we are working in a long tube with delicate walls, in close proximity to the pneumogastric nerve; and to enter this tube we must obliterate the angle which it forms with the cavities of the mouth and pharynx. As an aid to this and in the early days of esophagoscopy it was considered good form to pull out at least one upper incisor in order to make more room. This is no longer thought proper, but we are mighty glad when the patient happens to have lost them! There is danger of perforating the esophagus with the tube, but this should never

1. Janeway and Green. Surg. Syn. and Obst., Sept., 1911.

occur; force in inserting the instrument is unnecessary and utterly unjustifiable. There is danger of causing retro-pharyngeal abscess from traumatism; this has occurred at the hands of very good men. It should teach us to use the utmost gentleness and care. There is danger of laceration and perforation of the esophageal wall from misguided efforts to withdraw a sharp or angular body; the result may be mediastinal abscess and probable death. There is danger of reflex stoppage of respiration. I had such an experience in the case of a four year old girl who had a penny lodged in the esophagus. Just as I withdrew the penny and tube respiration ceased entirely; artificial respiration was necessary for several minutes before she breathed right again. This was under ether anesthesia. There is danger from the anesthesia itself. A nervous patient I wished to examine for suspected cardiospasm did not behave well under morphine and cocaine so ether was given. Manipulation had hardly begun when both heart and respiration went bad and, as I said above, hours passed during which I feared he would die on my office table. There is danger of edema of the glottis. Preparation for tracheotomy should be made and one able to do the operation should be at hand in nearly every case.

These are the chief dangers in this work. They seem formidable and they should lead us to use the utmost care. But we must remember that every patient with a foreign body lodged in the esophagus is already in danger. The question is: shall we ram something blindly down his throat and push the object down or pull it up or thrust it through the esophageal wall? Or shall we go after it in this other relatively safe and wholly logical manner?

PROPHYLACTIC MEASURES FOR PEOPLE GROWING BLIND IN LATER LIFE.

By S. HELLER, Director of the Institute for the Blind, Hohe Warte, Wien.

Translated by C. S. G. Nagel, M. D., President California Society for the Prevention of Blindness, San Francisco, Cal.

The interest in the blind awakened lately in various parts of the country would seem to justify the bringing more widely before laity and profession the following address delivered before the Vienna Ophthalmological Society, by S. Heller (Prophylaktische Massnahmen für später Erblindende, Zeitschrift für Augenheilkunde, January, 1911).

The policy and training advocated by the author appeals to one immediately as sound for suitable cases; on the other hand, we must not overlook the fact that the question involved (sc. of prospective blindness) is not always simple; in case of slow progress and where it is impossible to know whether we may not ultimately succeed in inhibiting the down grade progress, as in glaucoma, e. g., it must always be a matter of medical tact and judgment, whether to reveal the worst possible alternative of the issue to the patient. The matter is further complicated by constitutional temperament on the part of the patient. Still it remains quite true that the clinical viewpoint per se always inclines rather to concealment of blindness as an eventual outcome as sealing the patient's doom from a therapeutic standpoint, and it is highly meritorious on the author's part to put his pedagogic claim and raisonnement for an opposite principle of meeting that fateful eventuality before the profession.

"To become blind in early or full manhood means to the sufferer not alone the vanishing of the outer world with its infinitely manifold effects of form, light and color, but also the exclusion from every regular vocation, loss of independence and deliverance into charitable care. This committal to a passive pseudo existence with all its anguish, is unjustifiable; it is brought about by the traditionally sentimental conception of blindness and its consequences, but is contrary to modern pedagogics for the blind (as based on psychology and elaborated technically), which offer the means to preserve to the blind full activity and restore to them the joy of living. Experience in a practice of thirty-seven years, and more especially the results of the institution founded by me in 1898 for the training of those grown blind in later life, have confirmed in me convictions which I crave the privilege to bring before you, coupling therewith a request by the granting of which you will be able to benefit humanity yet more than you have done heretofore.

"It is as much an irrefutable demand of humanity as a postulate of justice to have every one growing blind be brought under blind-pedagogic instruction unless unfitted therefor through physical or psychical disease. This undertaking must, however, on no account be deferred until blindness is complete, and even less permissible is it to let some time pass by unused after absolute blindness has set in, lest the important and most efficient points of attack for pedagogic measures be reduced considerably or qualitatively lowered or maybe lost entirely. The pathetic picture of petrification presented by so many blind is not, as so often believed, the necessary consequence of blindness, but rather that of omissions and neglects which cannot be sufficiently deplored. Activity and definite aim are important factors for the buoyancy of our being; if they are rendered inactive, if resignation and apathy take their place, the rise of an ever increasing stagnation follows naturally. The great task to restore to one growing blind with the faculty to work, an existence humanly worth while, makes the demand absolute, to begin this training already in the preliminary stages, or better still, as soon as the loss or a decided diminution of vision have been prognosticated by the physician.

"There are weighty reasons for such a procedure. Success of pedagogic influence upon the prospective blind would be quite illusory if one were to start with the premise that for the visual perceptions those of touch, or of touch-hearing, could simply be substituted, or that the connex between the one and the other could be established by a mere mechanical juxtaposition or sequence. Nor are we indeed dealing here with a transmission per se, but rather with such a one that has assumed the character of permeation. The deterioration of vision causes the sufferer involuntarily to control and complement his deficient visual perceptions by touch. Through systematically and rationally training this process, which becomes gradually and successively a necessity, the qualities of vision as they had originated primarily through differentiation of the power of touch, gradually will transform themselves into those of touch and touch-hearing. Thus are formed specific psychical formations hardly definable, in which the problematical value of perceptions of touch is constantly and materially heightened by their new meaning. This process arouses a vivid interest in the prospective blind and the consciousness of a newly gained possession. Therefore, and because in the same proportion as vision diminishes the new acquisitions are augmented quantitatively and qualitatively heightened, this transmission becomes the compensation that is apt to mitigate in the most beneficient way the surpassingly painful contrast between seeing and nonseeing. These empirical facts have a bearing not